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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/661,567	09/15/2003	Alexander Manu	US20020268	7983
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EXAMINER MARTINEZ, BRITTANY M				
ART UNIT		PAPER NUMBER		
1793				
MAIL DATE		DELIVERY MODE		
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/661,567

**Applicant(s)**

MANU, ALEXANDER

**Examiner**

BRITTANY M. MARTINEZ

**Art Unit**

1793

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 October 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 64-66, 68-78 and 94-98 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 64-66, 68-78, and 94-98 is/are rejected.
- 7) ☒ Claim(s) 94 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 October 2008 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 22, 2008, has been entered.

### ***Status of Application***

Applicant's arguments/remarks and amendments filed on October 22, 2008, have been carefully considered. **Claims 64-66, 68-78, and 94-98** are pending in this application, with **Claim 94** amended, **Claims 96-98** added, and **Claims 63 and 79-93** cancelled. **Claims 64-66, 68-78, and 94-98** have been examined.

### ***Drawings***

1. The drawings are objected to because Fig. 2A is not of sufficient quality for reproduction in a printed patent document. Refer to 37 CFR 1.84(b). However, upon reconsideration, the Fig. 2A drawing submitted September 15, 2003, has been accepted.

### ***Claim Objections***

It is noted that Applicant has not provided proper status identifiers with the claim amendments filed October 22, 2008. **Claim 94** was amended in the amendments filed October 22, 2008; however, the status identifier provided for **Claim 94** is "Previously Presented" and the amended portion of the claim has not been properly identified. The examiner is waiving the requirement; however, in continuing prosecution, Applicant should submit claims with proper status identifiers. See MPEP 714 II. C.

### ***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in the prior Office Action.

1. **Claims 64, 66, 68, 94, and 96-98** are rejected under 35 U.S.C. 103(a) as being unpatentable over Warren (US 2002/0060428 A1).
2. With regard to **Claims 94 and 96**, Warren discloses a process for producing a biodegradable solid of organic waste comprising: composting organic waste; mixing the composted organic waste with a biodegradable binder to form a mixture; and forming a unitary biodegradable solid from the mixture by drying the mixture wherein the composted organic waste is converted to a unitary biodegradable solid (Warren, p. 1, 0009-0011; p. 2, 0011-0015; p. 3, 0022-0024 and 0028; p. 4, 0031).
3. With regard to **Claims 64, 94, and 96-98**, Warren discloses composting the organic material before it is dried (Warren, p. 2, 0011-0015; p. 4, 0031).

4. With regard to **Claims 97-98**, Warren discloses providing raw organic waste before it is dried (Warren, p. 2, 0013; p. 3, 0024).
5. With regard to **Claims 66 and 68**, Warren discloses forming the mixture into a shape (Warren, p. 3, 0028; p. 4, 0031); and drying of the mixture further comprising heating (Warren, p. 4, 0031).
6. Warren does not explicitly disclose reducing raw organic waste or raw kitchen organic waste to pieces before it is dried (**Claims 94 and 96**).
7. With regard to **Claims 94 and 96**, Warren further discloses that composting is used to refer to decomposition or digestion of a material (Warren, p. 3, 0022). It would have been obvious to one of ordinary skill in the art that composting an organic material is an obvious variant of reducing an organic material to pieces.
8. With regard to **Claims 94 and 96-98**, organic material that may or may not have been previously dried, raw organic waste, and raw kitchen organic waste are obvious variants. There is no reason to believe that the process of Warren would be rendered inoperable if raw organic waste or raw kitchen organic waste were used as the organic material. Warren discloses a process for producing a biodegradable solid of organic waste comprising "organic materials that are beneficial to plants and soil, and to the environment in general" (Warren, p. 1, 0009). Warren further discloses the use of "materials commonly considered to be and disposed of as waste" (Warren, p. 1, 0019).

9. **Claims 65 and 74-78** are rejected under 35 U.S.C. 103(a) as being unpatentable over Warren (US 2002/0060428 A1) as applied to **Claim 94** above, and further in view of Kazemzadeh (US 5,772,721).
10. With regard to **Claim 65**, Warren discloses forming the mixture comprising mixing the composted organic waste with a liquid (Warren, p. 3, 0028).
11. With regard to **Claims 75 and 77**, Warren discloses a carbohydrate as the biodegradable binder (Warren, p. 2, 0014).
12. Warren does not explicitly disclose mixing the composted organic waste with water (**Claim 65**); the water or biodegradable binder in the mixture being derived from the raw organic waste (**Claim 74**); or the heat activation of the biodegradable binder (**Claims 76 and 78**).
13. With regard to **Claims 65, 76, and 78**, Kazemzadeh discloses combining organic waste material, a carbohydrate binder, and water to form organic and semi-organic, substantially odorless solid fertilizers (Kazemzadeh, c. 1, l. 5-10; c. 2, l. 42-51; c. 5, l. 9-11, 25-26, and 41-51); wherein the biodegradable carbohydrate binder is heat activated (Kazemzadeh, c. 2, l. 48-51).
14. With regard to **Claim 74**, the presence of water and/or carbohydrates in reduced organic waste would have been common knowledge to a person of ordinary skill in the art at the time of the invention.
15. Thus, it would have been obvious to one of ordinary skill in the art to modify the process disclosed by Warren with the water and heat activated binder as taught by Kazemzadeh because one of ordinary skill in the art could have pursued the known

potential options for maximizing process efficiency and minimizing process costs within his or her technical grasp with a reasonable expectation of success.

16. **Claims 69-72, and 95** are rejected under 35 U.S.C. 103(a) as being unpatentable over Warren (US 2002/0060428 A1) as applied to **Claims 94 and 68** above, and further in view of Kubota et al. (US 5,634,600).

17. Warren does not explicitly disclose the removal of liquid water from the organic waste mixture (**Claim 69**), the reuse of the recovered water (**Claim 70**), the capture of water vapor resulting from drying of the shaped organic waste mixture (**Claim 71**), the conversion of the captured water vapor to liquid water (**Claim 72**), or drying the mixture to a moisture content at which it is free of odors caused by microbial activity (**Claim 95**).

18. With regard to **Claims 69-72, and 95**, Kubota discloses removal of liquid water from the organic waste mixture, the reuse of the recovered water (Kubota, c. 1, l. 13-24), the capture of water vapor resulting from drying of the shaped organic waste mixture, the conversion of the captured water vapor to liquid water (Kubota, c. 1, l. 13-24 and 45-63), and drying of the raw organic waste to a moisture content characteristic of lack of malodor (Kubota, c. 1, l. 29-35; c. 4, l. 45-67).

19. Thus, it would have been obvious to one of ordinary skill in the art to modify the process taught by Warren with the water treatment/process step order taught by Kubota in order to maximize the efficiency of waste processing, minimize wasteful use of water, and obtain a more desirable end-product.

20. **Claim 73** is rejected under 35 U.S.C. 103(a) as being unpatentable over Warren (US 2002/0060428 A1) and Kubota et al. (US 5,634,600) as applied to **Claims 71-72** above, and further in view of Krulik (US 2004/0108277 A1).

21. The aforementioned applied art does not explicitly disclose the liquid water obtained from the conversion of the captured water vapor being reused in a subsequent process for producing a unitary biodegradable solid (**Claim 73**).

22. With regard to **Claim 73**, Krulik discloses economical treatment of organic materials comprising methods of minimizing waster water discharges from, and fresh water inputs to, manufacturing processes (Kruklik, p. 3, 0030). Krulik further discloses recycling water from one portion of a process to other process loops within the same process with high efficiency (Kruklik, p. 3, 0030).

23. Thus, it would have been obvious to one of ordinary skill in the art to modify the process disclosed by the aforementioned applied prior art with the water reuse as taught by Krulik because one of ordinary skill in the art could have pursued the known potential options for maximizing process efficiency and minimizing process costs within his or her technical grasp with a reasonable expectation of success.

### ***Response to Amendments***

Applicant's amendments filed October 22, 2008, with respect to the Claims, Abstract, and Drawings have been fully considered and the Claim and Abstract amendments are accepted. The objection to the Abstract filed August 13, 2008, has been withdrawn. All of Applicant's Drawing amendments filed October 22, 2008, except



for the Fig. 2A amendment, have been accepted. Upon reconsideration, the Fig. 2A drawing submitted September 15, 2003, has been accepted. The objections to the Drawings filed August 13, 2008, have been withdrawn.

### ***Response to Arguments***

2. Applicant's arguments filed October 22, 2008, have been fully considered but they are not persuasive.
3. With regard to Applicant's arguments that the examiner has failed to meet the *prima facie* requirements of *Graham v. John Deere Co.*, 383 U.S. 1 (1966) because the examiner has mischaracterized the claimed invention (Applicant's response, 10/22/08, p. 8-10 and 13), the examiner respectfully disagrees. Applicant believes that the examiner concludes that raw organic material includes processed waste. However, Warren does not disclose drying of the organic material in all embodiments of the invention. Warren discloses thorough drying of the organic material in cases where sterilization is necessary, such as when the organic material is sewage sludge or animal manure (Warren, p. 2, 0012; p. 3, 0023). On the other hand, in cases where sterilization is not necessary, such as when the organic material is plant matter, yard waste, seed or grain hulls, and agricultural wastes, drying of the organic material prior to reducing is not disclosed (Warren, p. 2, 0013; p. 3, 0024). In any event, there is no reason to believe that the process of Warren would be rendered inoperable if the raw organic waste of the claimed invention were used as the organic material in the process of Warren.

4. With regard to Applicant's arguments that the examiner has failed to meet the *prima facie* requirements of *Graham v. John Deere Co.*, 383 U.S. 1 (1966) because the examiner has mischaracterized the invention of Kazemzadeh (Applicant's response, 10/22/08, p. 10-12), the examiner respectfully disagrees. Applicant argues that this mischaracterization is based on Kazemzadeh disclosing heating to at least the glass transition temperature of the binder instead of explicitly disclosing heating to a point where the binder is activated. As Applicant points out, the glass transition temperature is the temperature at which an amorphous solid, such as glass or a polymer, becomes brittle on cooling. However, the glass transition temperature is also the temperature at which an amorphous solid, such as glass or a polymer, becomes soft on heating. As evidenced by Wierer et al. (US 6,458,299 B1), softening of a binder at elevated temperature is characteristic of heat activation (Wierer, c. 3, l. 56-58).
5. Applicant further argues that the examiner did not resolve the level of ordinary skill in the pertinent art (Applicant's response, 10/22/08, p. 11-12). However, the indication of the level of ordinary skill in an obviousness rejection may be made either explicitly or implicitly in view of the prior art applied. Furthermore, examiners may rely on their own technical expertise to describe the knowledge and skills of a person of ordinary skill in the art. See MPEP 2141 II. C.
6. With regard to Applicant's argument that the combination of Warren and Kazemzadeh teaches away from the claimed invention because both references disclose using dried organic waste (Applicant's response, 10/22/08, p. 12), the examiner respectfully disagrees. Warren does not disclose drying of the organic material in all

embodiments of the invention. Warren discloses thorough drying of the organic material in cases where sterilization is necessary, such as when the organic material is sewage sludge or animal manure (Warren, p. 2, 0012; p. 3, 0023). On the other hand, in cases where sterilization is not necessary, such as when the organic material is plant matter, yard waste, seed or grain hulls, and agricultural wastes, drying of the organic material prior to reducing is not disclosed (Warren, p. 2, 0013; p. 3, 0024). A prior art's disclosure of more than one alternative does not represent a teaching away from any of the alternatives since the disclosure does not criticize, discredit, or discourage the solution claimed. See MPEP 2141.02 VI. Further, the disclosure of combined references is not limited to the specific teachings and disclosures in the individual references; rather, the disclosure of combined references is directed to what the references would collectively suggest.

7. With regard to Applicant's arguments that Warren in view of Kubota would result in dried pieces of waste being dried and disposed of; that none of the references disclose a unitary biodegradable solid formed from raw organic waste; and that the combination of references teaches away from raw organic waste processing (Applicant's response, 10/22/08, p. 13), the examiner respectfully disagrees. Warren discloses the production of a unitary biodegradable solid (Warren, p. 1, 0009-0011; p. 2, 0011-0015; p. 3, 0022-0024 and 0028; p. 4, 0031). Warren does not disclose drying of the organic material in all embodiments of the invention. Warren discloses thorough drying of the organic material in cases where sterilization is necessary, such as when the organic material is sewage sludge or animal manure (Warren, p. 2, 0012; p. 3,

0023). On the other hand, in cases where sterilization is not necessary, such as when the organic material is plant matter, yard waste, seed or grain hulls, and agricultural wastes, drying of the organic material prior to reducing is not disclosed (Warren, p. 2, 0013; p. 3, 0024). In any event, there is no reason to believe that the process of Warren would be rendered inoperable if the raw organic waste of the claimed invention were used as the organic material in the process of Warren. Further, the disclosure of combined references is not limited to the specific teachings and disclosures in the individual references; rather, the disclosure of combined references is directed to what the references would collectively suggest.

8. In response to Applicant's argument that Krulik is nonanalogous art (Applicant's response, 10/22/08, p. 14-15), it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the Applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Krulik is directed to the pretreatment of wastewater, and thus related to the general field of waste treatment. Krulik discloses economical treatment of organic materials comprising methods of minimizing water discharges from, and fresh water inputs to, manufacturing processes (Kruklik, p. 3, 0030). Krulik further discloses recycling water from one portion of a process to other process loops within the same process with high efficiency (Kruklik, p. 3, 0030). Maximizing process efficiency in a waste treatment process is reasonably pertinent to the particular problem with which Applicant is concerned.

9. With regard to Applicant's arguments that Warren in view of Kubota and Krulik does not disclose a biodegradable solid formed from raw organic waste (Applicant's response, 10/22/08, p. 15), the examiner respectfully disagrees. Warren discloses the production of a unitary biodegradable solid (Warren, p. 1, 0009-0011; p. 2, 0011-0015; p. 3, 0022-0024 and 0028; p. 4, 0031). Warren does not disclose drying of the organic material in all embodiments of the invention. Warren discloses thorough drying of the organic material in cases where sterilization is necessary, such as when the organic material is sewage sludge or animal manure (Warren, p. 2, 0012; p. 3, 0023). On the other hand, in cases where sterilization is not necessary, such as when the organic material is plant matter, yard waste, seed or grain hulls, and agricultural wastes, drying of the organic material prior to reducing is not disclosed (Warren, p. 2, 0013; p. 3, 0024). Further, the disclosure of combined references is not limited to the specific teachings and disclosures in the individual references; rather, the disclosure of combined references is directed to what the references would collectively suggest.

### ***Conclusion***

1. No claim is allowed.
2. In general, prior art renders the claimed invention obvious.
3. Applicant is required to provide pinpoint citation to the specification (i.e. page and paragraph number) to support any amendments to the claims in all subsequent communication with the examiner. **No new matter will be allowed.**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRITTANY M. MARTINEZ whose telephone number is (571) 270-3586. The examiner can normally be reached Monday-Friday 9:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached at (571) 272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Wayne Langel/  
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